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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/769,873	01/25/2001	Iwao Matsuura	33219	5489

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EXAMINER	
NGUYEN, TU X	
ART UNIT	**PAPER NUMBER**
2684	5

DATE MAILED: 06/14/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/769,873	MATSUURA ET AL.	
	Examiner	Art Unit	
	Tu X Nguyen	2684	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *26 April 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *2-21* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *21* is/are allowed.

6)☒ Claim(s) *2-6,8-10,12.14.16-20* is/are rejected.

7)☒ Claim(s) *7,11,13 and 15* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

13)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

a) ☐ The translation of the foreign language provisional application has been received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other:

DETAILED ACTION

Response to Amendment

1. Applicant's arguments filed 4/26/04, claims 2-6, 8-10, 12, 14 and 16-20 have been fully considered but they are not persuasive.

In response to applicant argument claim 2, page 9, Beale does not disclose a clock control operation to control the clock generator that is at least one of a voltage control and a frequency control. The examiner disagrees, the claim as such "at least one of a voltage control and a frequency control". In this case, Motohashi discloses "frequency control" (see col.2 lines 62-64), which "voltage control" is an alternative claim limitations of frequency control.

In response to applicant argument claim 4, page 9, Motohashi dose not disclose the frequency control of the clock control operation is a frequency modulation. The examiner disagrees, Motohashi discloses the frequency controller (see col.2 lines 62-64) controlling transmitting section which has a function of modulation.

In response to applicant argument claim 17, 1st paragraph page 9, Motohashi does not disclose or teach that the "clock controller outputs an instruction to change the wireless frequency of the wireless communication apparatus". The examiner disagrees, the term "instruction" is understood as programmable instruction which mobile telephone inherently built-in programmable software to control the processors (see col.4 lines 28-32).

In response to applicant argument claim 12, applicant argues that Motohashi does not disclose "the wireless frequency is changed form the preceding frequency

value". The examiner disagrees, Motohashi disclose the controller switches increasing a frequency of clock signal among (N+1) frequencies (see col.2 lines 60-64) and decreasing (see col.4 lines 35-36) which reads on switching next or previous frequency. For example, at some moment, a user may be operated in weak field intensity and the mobile device causes to be operated at low frequency, later on, the user moves to another environment having stronger signal, the mobile device causes to be operated at higher frequency. And later on, the user move back to weak field intensity environment, the mobile device caused switching back to preceding frequency.

Allowable Subject Matter

2. Claim 21, allowable.

Regarding independent claim 21, none of prior art teaching "the operation condition information includes a reception data error rate of the wireless communication apparatus is judged to exceed a predetermined threshold value" as cited in the claim.

3. Claims 7, 11, 13 and 15, objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Regarding claim 11, none of prior art teaching "the controller judges that a multiplied frequency of the clock coincide with the wireless frequency" as cited in the claim.

Regarding claims 7, 13 and 15, none of prior art teaching "the clock controller judges that a reception data error occurs in the wireless communication apparatus based upon the reception data error rate" as cited in the claim.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

5. Claim 20 is rejected under 35 U.S.C. 102(e) as being anticipated by Motohashi (US Patent 6,263,449).

Regarding claim 20, Motohashi discloses a data communication (see col.1 lines 8-19) to a wireless communication apparatus for executing a data communication via a wireless line (see col.5 lines 4-9), comprising:

an information communicator which communicates with the wireless communication apparatus and receives operation condition information of the wireless communication apparatus ((see col.5 lines 4-9);

a clock generator (see 106, fig.1) which generates a clock; and

a clock controller (see107, fig.1) for performing an clock control operation wherein the clock controller controls the clock generator in response to the operation condition information so that a multiplied frequency of the clock gives no disturbance to the operation of the wireless communication apparatus (see col.4 lines 34-42),

wherein the operation condition information includes information of a received wireless frequency used by the wireless communication apparatus (see col.4 lines 33-35), and

wherein the clock control operation is conducted when the received wireless frequency is judge to be an integer-multiplied value of an operation clock frequency (see col.2 line 65 through col.3 line 3).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claims 2-6, 9-10, 12, 14 and 16-19, are rejected under 35 U.S.C. 103(a) as being unpatentable over Motohashi (US Patent 6,263,449) in view of Beale et al. (US Patent 5,790,615).

Regarding claims 2 and 16, Motohashi discloses a data communication (see col.1 lines 8-19) to a wireless communication apparatus for executing a data communication via a wireless line (see col.5 lines 4-9), comprising:

an information communicator which communicates with the wireless communication apparatus and receives operation condition information of the wireless communication apparatus ((see col.5 lines 4-9);

a clock generator (see 106, fig.1) which generates a clock; and

a clock controller (see107, fig.1) for performing an clock control operation wherein the clock controller controls the clock generator in response to the operation

condition information so that a multiplied frequency of the clock gives no disturbance to the operation of the wireless communication apparatus (see col.4 lines 34-42).

Motohashi fails to disclose the clock controller performs at least one of a voltage control.

Beale et al. disclose the clock controller performs at least one of a voltage control (see col.11 lines 6-35). Therefore, It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Motohashi with the above teaching of Beale et al. in order to provide variable frequency signal.
Regarding claim 3, the modified Motohashi discloses the frequency is a frequency shift (see Motohashi, col.2 lines 40-50).

Regarding claim 3, the modified Motohashi discloses the frequency is a frequency shift (see Motohashi, col.2 lines 40-50).

Regarding claim 4, the modified Motohashi discloses the frequency control is a frequency modulation (see Motohashi, col.5 lines 9-14).

Regarding claim 5, the modified Motohashi discloses the operation condition information (see Motohashi, col.5 lines 9-23) includes information of a wireless frequency (the demodulating radio signals , see col.5 lines9-10, inherently extract IF signal from carrier frequency) used by the wireless communication apparatus.

Regarding claims 6 and 14, the modified Motohashi discloses reception field strength of the wireless communication apparatus (see Motohashi, col.5 lines 9-22).

Regarding claim 9, the modified Motohashi does not mention data communication is being only detected in the middle of communication; therefore it is

inherently that the information communicator receives information of the wireless frequency when data communication operation is commenced.

Regarding claim 10, the modified Motohashi discloses the information communicator periodically receives information of the wireless frequency in a predetermined time interval (see Motohashi, col. 6 lines 30-42).

Regarding claim 12, the modified Motohashi discloses the clock controller performs the clock control operation when the clock controller judges that the wireless frequency is changed form the preceding frequency value (see col.4 lines 38-42).

Regarding claim 17, the modified Motohashi discloses the clock control apparatus judges that there is no disturbance reducing effect for the wireless communication apparatus even after the clock control operation has been carried out (see Motohashi, col.3 lines 20-31).

Regarding claim 18, the modified Motohashi discloses the clock control apparatus notifies wireless frequency information which may be supposed to be disturbed by the clock to the wireless communication apparatus (see Motohashi, 203, fig.2).

Regarding claim 19, the modified Motohashi discloses a clock controller for performs said clock control operation so that a multiplied frequency of the clock gives no disturbance of the operation of the wireless communication apparatus (see col.2 lines 25-50).

8. Claim 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Motohashi and further in view of Kakeehi (US Patent 6,594,494).

Regarding claim 8, Motohashi fails to disclose the operation condition information includes line quality information of the wireless communication apparatus.

Kakehi discloses the operation condition information includes line quality information of the wireless communication apparatus (see col.5 lines 20-30). Therefore, It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Motohashi with the above teaching of Kakehi in order to provide handing over between radio communications on the basis of the electric field corrected by the electric field correcting means.

Conclusion

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tu Nguyen whose telephone number is (703) 305-3427. The examiner can normally be reached on Monday through Friday from 8:30 a.m. to 5:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, MAUNG NAY A, can be reached at (703) 308-7749.

Any inquiry of a general nature or relating to the status of this application should be directed to the Technology Center 2600 Customer Service Office at (703) 306-0377.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to:

(703) 872-9314 (Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington. VA., Sixth Floor (Receptionist).

TN

June 4, 2004

NAY MAUNG
SUPERVISORY PATENT EXAMINER